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ANCIENT INSCRIPTIONS.

DURING the present century many scholars, among them Mariette, Opput, Rawlinson, Hincks, and Talbot, have made the cuneiform and hieroglyphic inscriptions found in Asia and Egypt a subject of special study. They have deciphered many of them, and have brought to light much historical information.

To test the accuracy of the system by which inscriptions are deciphered, one containing nearly a thousand lines of cuneiform writing was sent to four Assyrian scholars. The translations when returned were found to coincide exactly in dates, names, and general signification. It might be asserted that this coincidence would result, even if the system of interpretation were false, as all the scholars had worked upon the same system. This objection was lately removed by a striking confirmation of one of Sir H. Rawlinson's translations. Twelve years ago he read upon an Assyrian monument, that two Assyrian kings, contemporaneous with Jehu, king of Israel, visited a cave at the head of the Tigris, and inscribed there their names. A short time ago the British consul at Diarbekir discovered the cave from which the Tigris flows, and there found the names inscribed; the writing being well preserved on the rocks, although three thousand years old. This discovery sets at rest all doubts concerning the authenticity of the interpretations upon which theologians have based many arguments in behalf of the Bible.

Near Beyrout, in Syria, there is a rock which bore an inscription by Rameses II., of Egypt, who, after defeating the Syrians, passed this way northward, and wrote the account in hieroglyphics within a square border. This inscription was of the utmost importance from a biblical point of view, and also because it confirmed the account of Herodotus. On the same rock is an inscription by an Assyrian monarch, a contemporary of Hezekiah, king of Judah. Several centuries after this an inscription was sculptured on the same rock by a Roman general; and, still later, an Arab general boastfully recorded his successes. All these inscriptions were in a state of perfect preservation until a few years ago, when a French army occupied Syria. The general of this army erased the Egyptian in-

scription, and, in its stead, sculptured the deeds of Napoleon III. Those who had gone before had each respected the inscriptions of his predecessors, and it was left for a French general of the nineteenth century to commit an act of vandalism almost incredible.

Rawlinson has been more highly honored in Assyrian investigation than any other explorer. Some years ago he discovered, amid the ruins of Babylon, a cylinder covered with cuneiform inscriptions. One of these, deciphered by Oppert, purports to be from Nebuchadnezzar, and, among other statements, contains the following: "The temple of the seven lights of the earth (the planets), the original edifice of Borsippa, was built by an ancient king; since then are reckoned forty-two generations; but the summit he did not finish. The men had abandoned it after the flood, because they found their words confused. The earthquake and thunder had shattered the bricks and torn down the casings of burnt tiles, and the materials of the walls were thrown together and formed hills. The great God, Merdach, had put it into my heart to build it again. I have not changed the place, and have not disturbed the foundations. In the month of Salvation, on the auspicious day, I have pierced the unburnt brick of the walls and the burnt brick of the casings with arches; I have inscribed the glory of my name on the friezes of the arches."

If this interpretation be confirmed, its importance can scarcely be conceived. The cylinder was found in the ruins of Birs (tower of) Nimrud, or as it is otherwise named, "The place of confusion." The inscription shows that the ruins were referred by tradition to so ancient a period that, under the accompanying circumstances, we may regard them as corresponding to the Tower of Babel. We have here, then, a striking confirmation of the received chronology. Allowing forty years to a generation, Birs Nimrud was erected about seventeen centuries before the reign of Nebuchadnezzar, or nearly twenty-two centuries before Christ; which varies little from the usual calculation. The theory that biblical chronology is wrong by many centuries, therefore falls to the ground.

In Egypt the results have been equally interesting. On several rocks are found hieroglyphical inscriptions, descriptive of the condition of the Hebrews in Egypt. A papyrus in the museum of Leyden is said to contain the following passage. The Scribe Kautsir thus addresses his superior: "May my lord find satisfaction in my having complied with the instruction my lord gave me, saying, distribute the rations among the soldiers, and likewise among the Hebrews, who carry the stones to the great city of King Rameses: Miamun, the lover of the truth," etc. Another papyrus roll in the same museum is said to contain similar statements respecting the serfdom of the Hebrews.

Not long ago a French engineer, while attempting to repair the basement of Pompey's Pillar, ordered a few of the loose stones forming the base to be removed. It was found that the pillar rested upon a cube of

quartzose conglomerate within the basement. This bore a hieroglyphical inscription, being the capital of a column brought from the upper region to serve as a base to the pillar. M. Mariette has deciphered the writing, and he decides that it was carved during the reign of Sesostriis II. ; so that Pompey's Pillar, now fifteen hundred years old, rests on a fragment cut at least seventeen hundred years earlier.

La France states that an explorer in Lower Egypt has disinterred a basalt effigy, bearing certain hieroglyphics on its plinth, indicating "beyond doubt that the features are those of Potiphar's wife." The statement may be taken with some allowance, as the discoverer is anonymous, and *La France* is not excellent authority.

MILITARY DRILL FOR SCHOOLS OF ALL KINDS.

II.

THE SQUAD-DRILL.

SQUADS for this drill should consist of from eight to sixteen ; the school, or class, if more than sixteen, should be divided into regular drill-squads, each having one or two non-commissioned officers—a sergeant or a corporal, or both. These officers should be drilled by the teacher, and will drill the squads under his supervision.

1. Formation and Alignment.

The signal for assembling is the command "FALL IN," or the drum-beat or bugle-call known as "the Assembly." A regular place for each squad and a place for the whole company should be fixed upon. At the signal, the squad arranges itself in one rank, faced to the front (Casey), close enough to touch elbows, but not crowded, and in the order of size—that is, the tallest boy on the right, and so on down. In disputed cases, height should be determined by the shoulders as well as by the head. The sergeant or corporal places himself habitually on the right, whether he be tallest or not ; and, if there be two non-commissioned officers, the lower in rank takes the left. They are called, when in this position, *right* and *left guide*.

Alignment is straightening a line of men. At most changes of position the line should be "dressed."

The *dressing* or *alignment* may be either forward or back, either by the right or the left. The eyes are always turned to the side *by* which (not *to* which) the dressing is ordered to be made. It is necessary to teach first this movement of the eyes alone.

The command is "*Eyes ---- RIGHT.*" At the last word, the head is turned an inch or two to the right; and the eyes are turned so as to look in the direction of the right shoulder. The great fault to be corrected, is bending the neck. See that the head is not poked forward, and that the eyes are in the same horizontal plane.

The command for turning the eyes to the front is "*FRONT,*" and they must be kept turned to the right till this order is given. "*Eyes ---- LEFT*" is the converse.

To dress the squad by the right. Go to the place where the right is to rest, and call for, or motion to, the *right guide*. He comes out and places his right arm against your breast. You put him in the right direction, and the left guide places himself in line with him at just the distance of the squad's length. Then order "*Right ---- DRESS,*" if the squad has to go forward to reach the line; and "*Right backward ---- DRESS,*" if backward. If forward, the squad *steps* up to within six inches of the line, turning heads to the right as if by the order "*Eyes ---- RIGHT;*" and each then *shuffles* up till he sees that he is in line with those on his right, and then stands motionless, without turning head or eyes to the front until he hears the word "*FRONT.*" No movement can be made until this order. To dress back, *step* back six inches behind the line, and then shuffle up as before. Dressing by the left is of course the converse. In general we shall only explain movements "by the right," and leave the method "by the left" to be inferred.

Alignments are always either backward or forward; if already on the line to be occupied, it is sufficient to order such and such files to come up or fall back.

2. *Facings.*

The *right*, *left*, and *about face* are executed by the same commands and the same means as in the first instructions, with the following change:

The squad may be counted off in twos, by the command, "*Count Twos.*" The first boy on the right, except the guide, counts "one;" the second, "two;" the third, "one," etc., without turning the head.

If so counted off, at the command, "*Squad, right ---- FACE,*" the "number ones" face as usual; but the "number twos" also step obliquely forward and to the right, placing themselves at the side of the "number ones." The squad is thus formed in column two by two, which formation is more convenient than a single file.

This "doubling," as it is called, must always be performed when the squad, having been counted off, is ordered to face; if it is intended that it shall not double, the order is, "*Squad, without doubling, right ---- FACE.*"

In facing to the left, "number two" stands still after he has faced, and "number one" places himself at the left of the "number two" man before him.

At the command "*FRONT,*" the men who have doubled return to their places, all facing to the front.

3. Marching in Line.

In marching in line there is always a guide, whose business is to keep the direction straight to the front, and to whom all the rest conform. This guide, if marching in open ground, should take two points, or objects, straight before him, and, fixing his eye on them, endeavor to keep them in line, the nearer covering the one further off. The others keep themselves in line, by constantly taking care that they touch elbows to the side of the guide.

The order for advancing in line is, "Squad, *forward*, guide *right* - - - MARCH," or "*Guide left* - - - MARCH." The principles have already been explained, the only point to be noticed is the touch of elbows toward the guide. The halt is as before.

4. Marching by the Flank.

"Squad, *right* - - - FACE; *forward* - - - MARCH." At "FACE," the boys face, and, if counted off, double. At "MARCH," they step off promptly as usual. The guide who is leading marches straight forward; the left-hand boy of each couple is the guide of that couple, and each one takes care to cover those before him exactly—that is, so that he can see only the head of the next boy.

The chief faults to be corrected in marching by the flank are, not stepping off at the word, and not keeping "closed up." These are most apt to occur when the files are not doubled, because then the steps must lock or overlap. The best remedy is, having faced the squad without doubling, to cause each boy to place his hands on the shoulders of the boy before him. This will necessitate keeping distances. Be sure and have the *first* step of full length; there is a tendency to shorten it, for fear of treading on the leader's heels.

To change direction, the order is, "*By file right (or left)* - - - MARCH." The guide turns immediately, but not short; he circles around for two or three paces, and marches off in a direction at right angles with the former; each boy or couple follows his course.

To start off the squad, and at the same time march it by file to the right or left, the order is, "Squad, *right* - - - FACE; *by file right* - - - MARCH." "Forward by file right," though often heard, is a barbarism and an absurdity.

Halt and front as before. "Front" is always that position in line in which the tallest are on the right.

5. Changing from Line to Flank Marching, and vice versa.

Instead of halting and facing, the order is given, "Squad, *by the right flank* - - - MARCH." This means that each boy *immediately* turns to the right, not *successively* as in the last section.

The order "MARCH" must be given with the fall of the right foot. The

left foot, which is commencing a pace, completes it, with the toe turned considerably inward—that is, to the right. At the next step the body is turned square to the right, the right foot being planted before the left in the new direction. At the third step, the left foot continues the march in that direction.

If the march was in line, this brings it by the flank, and *vice versa*. If the files are counted off, they double and undouble by lengthening the step and obliquing, just as when facing and fronting at a halt.

To march by the left flank, give the word "**MARCH**" on the left foot.

Instead of halting and facing *about*, the order is, "**Squad, right-about - - - MARCH.**" This is executed in the same manner as the first movement in this section, except that the turn is completely around, and always to the right.

"**Squad, by the right (or left flank) - - - HALT,**" and "**Squad, right-about - - - HALT,**" explain themselves.

When marching in line the order may be given, "**Squad, by the right flank, by file left - - - MARCH.**" At this command, the right guide marches straight on, stepping short for a few paces. The others turn to the right flank and change direction to the left, following the guide.

6. "*On the Right by File into Line.*"

Suppose you are marching your squad by the right flank toward the north, and wish to form them in line facing east. If you order, "**Squad - - - HALT; FRONT;**" they will face west. If you order, "**Squad - - - HALT; Squad, right - - - FACE;**" they will be facing to the rear, the right where the left ought to be. How shall we cause them to face to the front and east?

There are two ways. The order for the first is "**Countermarch by file left - - - MARCH.**" This is merely a double "*file left.*" When all have come around, halt and front.

The other method is by the command, "**On the right by file into line - - - MARCH.**" This is much better, but a little more complicated. We will first explain it, supposing the files not to be doubled. The command "**March**" is given just as the right guide reaches a point opposite where the right of the line is to rest. The guide goes "*by file right,*" not followed by the rest of the squad, and having marched several paces, halts on an intimation from the teacher. The next man goes a pace further than the guide did, turns to the right and comes into line next to the guide, on the left. The next man goes on a pace further and turns, and so on.

If doubled, number two (who, on approaching the line, finds that he and his comrade ought to change places) steps very short at two paces from the line and lets number one cross over and come into line first.

If marching by the left flank, the method is the same, substituting "*left*" for "*right,*" and "*number one*" for "*number two.*"

7. *Marking Time.*

"*Mark time* - - - - *MARCH*." Commencing with the left foot, raise each alternately, as if marching. This is done without orders, when an obstacle is encountered.

8. *Dismissal.*

"*Break ranks* - - - - *MARCH*" needs no elucidation.

9. *Company Drill.*

When these movements are executed well by the squads, unite them and give a company drill in one rank. Substituting "company" for "squad," the orders are the same. After learning the wheelings and double-quick, we shall be ready for a real company drill. The principles are the same as in the squad-drill, but there are some variations on account of the two ranks in which the company is almost always formed.

The teacher's ingenuity will enable him to apply the principles, if not the exact mechanism, of these maneuvers to the movements of his classes. If the commands are given by word of mouth, the word "Class" may be substituted for "Squad."

SECOND-HAND SCIENCE.

THE following article from the *London Reader* is as applicable to our people as to the English. We give it entire :

A healthy, comfortable ignorance is a fine thing now-a-days, and very hard to find. One can scarcely meet with it in a Sabbath-day's journey. People are getting so profoundly wise, and of such terrible quick parts, that if a few scientific puzzles were not to hand, with a *canard* now and then, there would really be no living in peace with one's wise neighbors. A hearty abandonment to laughter, fun, or mere animal enjoyment will soon be considered as sinful as long curls and expletives were in old Puritan days. Every occasion is so "improved," and men, women, and children so wickedly clever, that we are beginning to think Lord Bacon no wiser than a village pedagogue, and his namesake Roger, the real "light," because he said that he could teach all the science and languages he knew in six months, to an industrious man of good memory. Men find themselves wise as suddenly as Lord Byron found himself famous, by getting up some fine morning after a semi-scientific lecture. Young men's diaries are a sort of *suspirium de profundis*, and young ladies coquet with science long before they have finished their education or "come out" before a critical world. The antiquity of man troubles even a grave-digger, and the shepherd leaves his stars to muse on the origin of species.

There is much to admire in all this. There can be no patent or protection in learning. It is like love, water, and sunshine, and will find its way everywhere. But there is such a thing as getting too much of it, and too early, and too second-hand. It is one of the marvels of to-day that scientific discoveries are the property of all before they could even be known to the wise in a by-gone age; but this very rapidity of transmission is by no means an unmitigated good. We get wise too soon, and hold our knowledge loosely. A lecture, an essay, or a few allusions in a novel, may make us seem very learned, but really go for very little. It is but second-hand science of a very poor quality. Locke has hit this modern pertness so wisely, that we can not forbear quoting him. "The floating of other men's opinions in our brains," he says, "makes us not one jot the more knowing, though they happen to be true. What in them was science, in us is but opiniatry, whilst we give up our assent only to reverend names, and do not, as they did, employ our own reason to understand those truths which gave them reputation. Such borrowed wealth," he adds, with a striking illustration, "like fairy money, though it were gold in the hand from which a man received it, will be but leaves and dust when it comes to use." True as this most undoubtedly is of all philosophy, it is most especially so of science. There is nothing that suffers so much in transposition. It is sometimes hard to recognize it, after it has passed through half a dozen minds. A story grows in transmission, but science lessens. A man puts his inferences and embellishments into a story, but, unless he has supplemented his first knowledge by further research or experiment, his science becomes "bare, bald, and tawdry as a fingered moth." It is like a sixpence that has rubbed in so many pockets, and against so many penny pieces, that it is nothing but a counter.

Specialty has done much to produce this attenuation, but lecturing by unscientific men has done more. Division of labor is undoubtedly a fine thing, and contributes to advance every thing to greater perfection, but it makes men less men all round, and less full-minded. Here is one man metal mad, and finding new metals everywhere, until one's very thoughts are somehow smelted in his presence, and any fine attitude of strong sense or manly self-assertion is only so much iron in the blood. Here is another who is rabid upon heat, and puts your poet's fine frenzy down to the rotation of worlds that were going on before Adam, and the sunshine in which some fairy fern-leaves floated æons upon æons since. Another trips you up in your speech with Grimm's Law, until you fade into silence, grasping your poor martyred *h's*. It is the simple scholar now who works out the affiliations of the sciences, and the dull troglodyte who seasons our singularities with some strong common sense. We can survive this dissection, but may not wisely live out this sciolism. If people will be so anxious to have science made easy and popular, we must expect a pert shallowness and a troublesome conceit. It is too much to expect that a law, or a series of

facts that have taken years to elaborate, shall be put in common minds like smart riddles or jingling rhymes. No one yet has made the higher mathematics as pleasant as hedgerow botany, and no one ever will. If we are to have hard facts, we must toil for them. If we are to place ourselves on a par with the arch-priests of science, we must graduate with them, and not think ourselves as wise as they even when we can follow the sweep of their minds. Scientific evidence is so minute and cumulative, that we must not expect to read first, and then learn its alphabet afterwards. Science is precisely like mysticism was said to have been; you can not understand it until you are yourself scientific. It may dazzle you into admiration for another, but until you become one with it you must not expect to dazzle others. The only hope we have in our popular lecturings upon science is, that they may attract, not satisfy; but this depends entirely upon the mode of handling a given subject, and the kind of hearer who is moved. They may soothe and bolster out with fancied good, like those intellectual and emotive dram-drinks called novels, or they may excite like morning light, and inspire like mighty love. If they impel to study, they can not do harm; but if they do not, they are worse than useless, and a poet might as well feed upon glow-worms, as a healthy mind get strength from second-hand smatterers. If these lecturers would but content themselves with giving expositions of departments of science, instead of running out other people's wisdom through their own taps, and furnish their hearers with lists of authorities and works, and profitable hints as to study, we should have fewer pigmies upon Alps, less gossiping upon scientific fag-ends, fewer howls about heresy, fewer staggerings of faith, and more sympathy with the aims of science, more culture, more charity, and more of that wisdom which Joubert sweetly calls "rest in light."

ROBINSON CRUSOE.—An English paper says: "It is erroneously supposed that 'Robinson Crusoe' first appeared piecemeal in the original London *Post*, or Heathcote's *Intelligence*, a small folio journal, which was commenced on the 19th December, 1718. The first volume, 'The Strange, Surprising Adventures of Robinson Crusoe,' was published in octavo on the 25th April, 1719; and the second, 'The Further Adventures,' on the 20th of the following August. It was not till the 7th of October, in the same year, that the original London *Post* commenced giving two pages of 'Robinson Crusoe,' beyond its two pages of news, etc. 'The Further Adventures' were not concluded in that paper till the 17th of October, 1720. Mr. W. Lee, in 'Notes and Queries,' calls attention to this fact, we presume, because 'Robinson Crusoe,' as published in Heathcote's *Intelligence*, is a book sought after by book collectors, under the impression that it is the purest text, and fetches almost its weight in gold when sold at public auction."

THE SCHOOL-BOYS' TRIBUNAL.

CHARACTERS:

SOPHOS, the Judge,
1st ATTENDANT,
2d ATTENDANT,
TIM TROUBLESOME,
BILL BRAG,

SIMON STUPID,
ROBIN ROGUE,
GRANVILLE GOAREHEAD,
HIRAM HOLDBACK,
ERNEST THINKER,

LAWRENCE LART.

SCENE.—Sophos, with long white hair and venerable appearance, sitting upon an elevated seat. Two attendants stand beside him. A gilt crown and a bundle of birch rods are lying near. One of the attendants steps forward and draws a circle with chalk upon the floor, within which each of the boys stands while speaking.

Sophos. Bring me my wizard-book. (*Attendant places a large book in his lap.*) See that the crown and rods are ready, and then admit the youths who are to be brought within the circle of our magic power, and I will read to them their destiny. (*Tim Troublesome enters.*) Who is this? (*Turns the pages.*) Is not this Timmy Troublesome, the boy who meddles with everybody's business, and is forever getting into difficulty by his restlessness?

Attendant. The same, sir.

S. He is a curious fellow. I can not say much good of him. I think it is of this kind of material that disorderly schools are made. Tim, do you know the fable of the dog in the manger?

Tim. I think I have heard it.

S. Perhaps you may see a picture of yourself there, if you look sharp. You neither study, nor let others study. So you are like the dog. You have a bad reputation, and must suffer the consequences.

T. Please, sir, don't be too hard on me. I only leaned over in my seat for a minute to-day, to look at the pictures in Sam's book, and I got called out on the floor.

S. That was because you was not minding your own business.

T. And if I happen to say a word to the fellers in fun, they pick a quarrel with me.

S. It takes two to make a quarrel. You are apt to be cross as well as meddlesome. So you make yourself disagreeable to everybody. Don't you sometimes get others into a scrape, by your meddling propensity?

T. I don't know. I can't help it if I do. They are as much to blame as I.

S. That is the old excuse. But it will not answer here. Your record is on this page, and I will read it. (*Reads.*) *The meddlesome boy becomes the meddlesome man. He will not succeed in life, because he will not mind his own business. He gets himself and others into trouble, and thinks he can not help it. Take him away, and see what*

good discipline will do for him. (*Attendant hits him with the rods, and drives him to the opposite side of the stage.*)

[*Enter BILL BRAG, with a swaggering air.*]

Brag. I suppose you know me. My name is William. I have always been one of the luckiest fellows in school. I came within an ace of getting the fourth prize at the last examination. Father said I deserved it, but the committee couldn't see it in that light.

S. Oh yes; your last name is Brag, I believe—Bill Brag, as the entry stands in my book.

B. That's my name; but I would rather be called William. It sounds better.

S. We will not quarrel about names. You pretend to be quite a scholar. Tell me what makes you so much ahead of all the rest.

B. Oh, that is easy enough. In the first place, here's brains. (*Pointing to his head.*) None of your dunce blood in this chap. I come of good stock. I hold my head up in good company, and make the best of things. Says the master to me, the first day I went to the grammar-school, "You look like a good boy, Willie; I hope it is so." Says I, "Yes, sir; I never tell lies, or swear, or do any thing of that sort." So I got into favor right off, and was put ahead. I look out for number one, and I guess I can stand my chance with anybody. And then, you see, I mind my own business; that fellow over there doesn't (*pointing to Tim*), and I can—

S. Stop; that will do. I see what you are made of. Let me read to you a short proverb which is written here beside your name. (*Reads.*) *Self-praise goes but little ways.* I never knew a boaster to be respected in a community. People soon find him out. He is the ass in the lion's skin. Everybody knows that his roar is only a bray. Go, Bill, and act a manly part; leave off bragging, and you may be somebody yet.

[*Enter LAZY and STUPID.*]

S. Ah! what have we here? a pair of twins?

Attendant. This, sir, is Master Lazy, and this Master Stupid. They are great friends, always together, and often mistaken for twins. They want you to tell their fortune together.

S. That is easily done. Their names are connected by a brace in my book. Has not one of you a brother named Dunce?

Lazy. (*Yawning, and pointing at Stupid.*) I guess it's him.

Stupid. (*At the same time.*) Hey!

S. Don't both speak together. Oh, now, as I look a little closer, I perceive that both of you belong to the Dunce family. Stupid, tell me how many hours there are in a day.

Stupid (*drawling*). Hey!

L. (*to Stupid.*) Say sixty.

S. How do you make that out, Master Lazy?

L. Why, the folks say I sleep twenty-four, and I guess I have to worry through about twenty-four more in school, and the rest will make it pretty near up to sixty.

S. You are sharp at reckoning, and if you had a little more life, perhaps you might make a scholar. But I have a serious account against both of you. This is the way it stands. Item first—a long array of tardy marks. Second—idle, more than half the time. Third—dozing in school hours. Consequence—*bad lessons*. If you do not soon reform, you may expect to be reckoned by and by among the drags and drones of society, as you are now a disgrace to the school. But here comes one who may, perhaps, teach you something.

[Enter ROBIN ROGUE, full of fun, who pushes LAZY and STUPID out of the ring.]

S. Better a dozen rogues than one fool. You plague of schoolmasters, you young scapegrace, Robin Rogue, what have you to say for yourself, why the law should not have its course? Are you guilty or not guilty of the last attempt to poke fun at honest, peaceable folks?

Robin. Guilty, sir.

S. I am glad to see that you own your silly pranks, for that gives hope of reformation. But what excuse have you for your misdemeanors?

R. I don't mean any harm, sir. I must have a little fun, once in awhile.

S. Fun is all right in its place, but in school it goes by a different name. There, they call it mischief. Who tipped over Harry Slowthink's inkstand the other day, and spoiled a new copy-book?

R. I did, sir.

S. And how did you come to do it?

R. I was tickling Harry's ear with my pen, sir.

S. And why did you that?

R. I couldn't help it, sir. The fun is in me, and it must come out. I don't stop to think.

S. Ah, yes. I see how it is. But some teachers are a little blind in this matter. Such boys must be kept busy, and pretty closely watched. You may become a smart man under the right kind of discipline. We'll keep a sharp eye on you, and give you enough to do. I think it may be well to set you to work to chastise the dunces. Give him a rod, and let him try his hand on those we have here. (*Attendant gives him a rod, which he uses freely.*)

[Enter GOAHEAD, pulling along HOLDBACK.]

S. A precious couple this, I should think. If you could be thus linked together through life, you might serve as a mutual restraint to each other. I can read your characters at a glance. They are the opposite extremes. Master Goahead pushes along anywhere without thought, and is always

making blunders, while Holdback here will never undertake any thing difficult for fear of failing. Boys, let us see what you know. I will give you an easy problem. If a man walk four miles in an hour, how long will it take him to go a distance of sixty miles? Now, *think* of it. (*Holdback looks puzzled, while Goahead is eager to answer.*)

Goahead (rapidly). I know, sir. If he walks four miles in an hour, in sixty miles he will walk four times sixty hours, which are two hundred and forty miles. Therefore, he will walk two hundred and forty miles —no, two hundred and forty hours.

S. There is a sample of your rushing propensity. You don't stop to think, but you say the first thing that comes into your head. Holdback, what is the true answer to the problem?

Holdback. I don't know. I can't do it.

S. Can't is a favorite word with with you. Stop and think.

H. I *can't* think. I never did any sums like that.

S. Ah, I see. You won't *try*. That is the trouble; so you go to your companions for help in difficulty. You copy examples from other boys' slates. When you have a hard lesson, you look it over, and then shut the book in despair, saying, "I can't get it." Goahead gets his task done in a trice, and after all makes the most bungling recitations in the class. He needs to be more cautious; and you, Master Holdback, need to be more confident, and then you will both succeed.

[*Enter ERNEST THINKER.*]

S. What is your name, my lad?

Ernest. The boys call me Ernie, though my true name is Ernest.

S. *Ernie*? That means, I think, that you have *earned* a good reputation by your diligence.

E. I think not, sir. I don't learn so easy as Brag and Goahead, and so I study harder than they:

S. That means that you do with your might whatever you have to do. I have heard of you before, Master Ernest Thinker, and your record is written in this book. (*Reads.*) The good scholar is one who with small means makes great improvement. He may have a mind which is not quick to comprehend, but he bends all his energies to the work that is before him. His advance may be slow, but it is sure. And he is not the herald of his own virtues. Others praise him, while he keeps silence. Such a boy will in time reach a true and noble manhood. He deserves the crown as a reward for his diligence and fidelity.

[*Boys gather around, and form a tableau. SOPHOS places the crown upon ERNEST'S head. Scene closes.*]

A HOTEL in San Francisco offers its guests the use of a well-chosen library of five thousand volumes.

PECULIARITIES OF GRAMMATICAL INSTRUCTION.

WE have lately visited many schools to which grammar gives the title, and also many others of a different type. In all, grammar is one of the principal studies; but we have failed to discover that correctness of expression and that clearness of ideas which are supposed to follow from grammatical instruction; on the other hand, we have seen advanced pupils blunder in the most abominable manner over the simplest forms of language, and become perfectly imbecile when asked to commit to paper their ideas upon their different studies and lessons.

We shall attempt to show, as far as our limits will permit, certain methods at present employed for the making of thorough English scholars, and for the improvement of all in speaking and writing a language second to none in beauty and logical exactness.

The sentence under consideration happens to be the following: "The teacher requested him to recite his lesson." The pupil, who is a new boy, and who has never studied the particular grammar of the class, says, "*To recite*, verb infinitive, object of *him*, which is its *grammatical* subject."

He loses his mark—all his grammatical knowledge, acquired by patient study, amounts to nothing. Yet eminent grammarians thus dispose of it.

Another boy tries it. "*To recite*, verb infinitive, used as a verbal noun, object of *requested*." He also loses his mark. Nevertheless, illustrious grammarians have said so. Still another boy tries. "*Recite*, verb infinitive, object of the preposition *to*, which connects it with *him*." He loses his mark; yet learned grammarians have said so.

Another tries. "*To recite*, adjunct of *requested*, modifying act of requesting, and having *him* for its *logical* subject." Fortunately for his credit, perhaps not for himself, he is declared to be the brightest boy in the class. Yet few grammarians have so disposed of the word.

In another school the class is at work upon the sentence, "They seem to study." The first boy, who has just entered from another school, says: "*To study*, verb infinitive, object of *seem*. One verb governs another as its object or complement in the infinitive." The boy is merely unfortunate. Another boy holds up his hand. "*To study*, verb infinitive, adjunct of *seem*, *study* being governed by the preposition *to*."

This boy is beyond hope. Another hand goes up. "*To study*, verb infinitive, used as an adjective, attribute of *they*." By rule: "The infinitive mood has the construction of a noun or adjective."

This boy obtains his mark. Which is right?

A certain well-known grammarian says of the sentence: "We intend to leave town to-day." "The verb *intend* is transitive, and governs the infinitive *to leave*, the infinitive being used as a verbal noun." Another grammarian not less known says: "*Intend* is intransitive, *leave* being gov-

erned by the preposition *to*." This distinction may be of eminent use to a small boy, in assisting him to write and speak correctly, but we fail to see it.

Of the sentence, "I saw the sun rise," a certain grammarian remarks : "The effort has been made to implant from the Latin into the English a rule for the subject of the infinitive ; but most grammarians have discarded the innovation without even deigning to give it a critical notice or formal rejection: *I, too, incline to reject it.*" Nevertheless, some of our best writers on grammar have given us a rule.

In some schools, the subject is parsed as *grammatical* ; in others, as *logical*, it being asserted that the infinitive has no grammatical subject, for the reason that the infinitive predicates nothing.

Not long since we were visiting a school in a neighboring city ; the class was disposing of the sentence, "He was old enough to go to school." The teacher said *to go* is the adjunct of *enough*, citing the authority of one of our ablest grammatical writers. A few days afterward, we heard *to learn*, in the sentence, "She is old enough to learn her lessons," disposed of thus : "*To learn*, adjunct of *old*," and a writer of undoubted authority was cited. Who shall decide, when doctors disagree ?

"Teach them obedience to the laws." At first sight, to a person of ordinary capacity, this seems perfectly clear ; yet several grammarians have essayed the interpretation thereof. One saying that *obedience* is the object of *to yield* understood, the pronoun *them* being the direct object of *teach* ; another, that *obedience* is the direct object of *teach*, and *them* the indirect object or limiting adjunct. This is really a question of ultimate importance, and we do not see how the cause of education can go on, unless every lad in the country shall come to a sound conclusion concerning this point—no matter how little he may know of such trivial things as the process of putting ideas into good English.

"To be candid with you, I was in fault." Of this sentence a certain author, who has written a work on grammar of something more than a thousand pages, says : "Some grammarians have erroneously taught that *to be* is put absolute, this is not true ; *to be* depends upon *I confess*." All practical men will recognize the necessity that their children should learn what opinions different grammarians have held upon this important point.

One of our best known grammatical writers, speaking of the sentence, "Our honor must be maintained," says : "*To be maintained* is a verb in the infinitive mode—observe the spelling—used as a noun in the relation of predicate." Another author says, "*To be maintained* is a verb in the infinitive, used as an adjective, and qualifies *honor*."

We would advise all little schoolboys and girls to adopt the right method of disposing of this infinitive.

In a grammar-school in Boston the class was asked to parse the sentence, "It was so bright as to dazzle our eyes." An intelligent lad said : "*To dazzle our eyes* modifies *so bright*, to which it is joined by the con-

junction as." He obtained a perfect mark. We had the same sentences thus analyzed in one of the grammar-schools of New York city: "*As to dazzle our eyes*" modifies *bright*, as being a preposition. That pupil obtained a perfect mark. One of two things is evident, either a perfect mark means nothing, or such grammar means nothing.

"He said nothing further than to give an apology for his vote." Somebody says: "*To give*, verb infinitive, object of the preposition *than*." Hundreds of grammatical authors say, "*Than* is never a preposition."

"An object so high as to be invisible." An author to whom we have frequently referred says: "*To be invisible*, infinitive phrase, object of the preposition *as*; and so say others—yet dozens say, "*As* is never a preposition."

"The pupils assemble to read." "*To read*, verb infinitive, used to express the purpose, end, or design of the act expressed by the finite verb; or it is governed by the phrase, *in order*, understood," say some. Not so, say others—"Read, verb infinitive, adjunct of *assemble*, and governed by *to*."

"We love to study." "*To study* is a verbal noun, third person, neuter gender, objective case, governed by the transitive verb *love*." So teaches one grammarian. "*To study*, verb infinitive, object of *to*." So teaches another. "*To study*, adverbial adjunct of *love*," says another.

We might multiply instances of this kind *ad infinitum*, but time and space are lacking; suffice it, that we have shown some few of the different dispositions made of the *infinitive*.

We subjoin a few of the many rules given by writers on grammar:

"A verb in the *infinitive mode* is the *object* of the preposition *to*, expressed or understood."

"The preposition *to* governs the infinitive mood, and commonly connects it to a finite verb.

"The infinitive mood is governed by verbs, nouns, or adjectives.

"A *participle* or an *infinitive* relates to a noun or pronoun as its subject; and the infinitive may besides modify the meaning or complete the construction of some other word, or part of the sentence."

"The infinitive mood has the construction of a noun or adjective."

We need not say that the last rule strikes us as the best we have ever seen.

We have always thought that the object of English grammar was to teach one to write and speak the English language correctly. The question arises, whether the teaching of analysis and syntactical parsing is the best method of accomplishing that object. We have no doubt that benefit may be derived from this study, but as grammatical instruction is at present conducted, too much time is devoted to parsing and to the consideration of the various subtleties of grammar, to the almost entire neglect of exercise in construction, in false syntax, and in what is commonly known as composition.

JULIAN GURDON: SCHOOLMASTER.

CHAPTER VIII.

THE SELECT SCHOOL.

MY few months' absence had greatly changed me. I went away a boy, I returned a man. I had toiled for others, and for myself, and grown stronger in the conflict with the rude forces I had conquered.

All that spring and summer I studied hard and faithfully. I had not fallen behind my class, and when the yearly examination came, I was ready to pass on to the next, the senior class, and one year more would see my collegiate education finished.

My mother would have had me remain at home during the following winter, but I was resolute in denying myself that pleasure. Both she and Emma were now doing well. My mother had become known to the faculty of the college, and her house was now filled by unmarried professors, tutors, and the better class of students. After the commencement, Robert Lawrence, who had entered favorably, was added to these.

Emma's musical talent had been discovered and appreciated. She had now as many pupils as she could attend to, and was also engaged, at a handsome salary, to sing in the principal church of Elmtown. The resources of the family were so much improved, that I might have remained at home, but I had a sturdy independence which would not allow me to be a pensioner upon my mother's bounty.

Accordingly I employed all the leisure I could gain in looking about for an engagement, and was at last so fortunate as to receive a proposition to conduct a select school in a flourishing village in a neighboring State. My arrangements were soon made, and the school was to commence on the first of November. A self-constituted committee had agreed to prepare the school-room, and engage a boarding-place for me; and these preliminaries being off my hands, I devoted myself indefatigably to my studies, till the period of departure arrived. Then I bade farewell to my mother and sister, with not less real sorrow than before, but with fewer misgivings, because I knew they had a devoted friend in Robert Lawrence.

I need describe this winter's experience and work with far less minuteness than the first. I had grown more accustomed to my calling, and more self-assured. But I encountered a different state of society, and a very different class of pupils.

Farleyville was a manufacturing village. There was a very sharp and well-defined distinction of classes. There were the families of professional men, of the wealthier storekeepers, or merchants, and of the

manufacturers, in one class; of the lesser storekeepers, respectable mechanics, and retired agriculturists in another, and the operatives in a third. With the last I had nothing to do. My school was to be emphatically select, made up entirely from the first class, though it did happen, somehow, that a few from the second class crept in. It was a school of young gentlemen and ladies, though I am constrained to say, that except a varnish of external refinement, in some cases very thin indeed, I found them in no respect better than the rustics that were gathered about me the previous winter.

Board had been secured for me in the family of the rector of St. John's, with whom, notwithstanding their great effort at gentility, I found myself less comfortable than at the old Pilgrim mansion.

I found here more pretension among my scholars. Books and apparatus were furnished in prodigal abundance. There was a scornful avoidance of the question of expense. Every thing was on the high-pressure principle, and I soon found that the results of my tuition were expected to conform to this general idea. Given tools to work *with*, and brains to work *upon*, finished scholars were expected to be turned out with speed and precision.

Among the sixty pupils, but few were laborious and conscientious. They expected much of me, and little of themselves, in the way of trouble. In spite of all the helps I really had, I found hindrances innumerable. These young gentleman and ladies came to the school nicely and even elaborately dressed, with the idea of enjoying themselves while their teacher, by what process I never rightly understood, should make good scholars of them. The more ignorant they were, the more firmly fixed this idea. I found it the worst enemy I ever encountered during my life as a teacher.

Notwithstanding my earlier experiences at Greenvale, I left that place with a sense of satisfaction in the result of my labors. But such was by no means the case at Farleyville. A few of my pupils had improved, but they were chiefly from the second social class of which I have spoken, boys and girls who anticipated making some practical use of their education, and who were anxious to make the most of each opportunity. I respected these, and had most sympathy with them: I fear lost caste in consequence. At any rate, I found that my invitations decreased, and that I received fewer smiles from some of my pretty, over-dressed pupils, and less condescending attentions from certain purse-prond fathers, and their wives and families, when it became known that I spent many evenings with Edward and Sarah Gaylord, the intelligent children of a worthy carpenter, who was devoting all his spare means to their education. Edward was pursuing his mathematical studies with reference to future employment as a civil or topographical engineer, and Sarah intended to devote herself to teaching. Both possessed *hungry* minds—had a

voracious appetite for knowledge, which kept me always on the alert to provide the required supply. They were plain and simple in their tastes, but possessed great natural refinement. Their home was a model of comfort and simplicity.

These were the sole friends I made in Farleyville. At home, Mr. Prout, the rector, was pompous and weak; Mrs. Prout, in poor health, and absorbed in her ailments and her efforts to live genteelly on a slender income. At Mr. Chandler's, the principal manufacturer, who lived in the largest mansion in the village, I had at first been favorably received. Miss Rachel and Miss Amelia were my pupils—very fine ladies, who wore silks and jewelry in the school-room, and had airs and graces to match. They had been at boarding-school, and only attended my school, as they graciously informed me, for the sake of giving their influence to its success. They had a smattering of various branches, played the piano noisily, spoke French with an extremely American accent, and a ludicrous disregard of such unimportant matters as gender and number, and were not much more proficient in their English. Their information upon geographical and historical points was not much more correct, and, had my judgment ruled, I should have given them a course of rudimental instruction, instead of the more advanced studies which they played at learning.

I think I have said enough to show why I left Farleyville in a far less satisfied state of mind than I did Greenvale. The results of my winter's services were so poor, that I almost felt guilty of dishonesty in receiving the very liberal payment awarded me. But I reconciled myself, on reflecting that I had honestly done my best, and struggled bravely with the many obstacles I encountered.

Our closing exercises were on the grandest scale possible. Anticipating only failure if an examination of proficiency in the substantial of education was attempted, I passed over those branches as lightly as possible. In these, only the Gaylords and a very few others acquitted themselves creditably. But in showy matters we did better, and it chanced that there were few in Farleyville who could detect how meretricious was the performance.

CHAPTER IX.

TUTOR-LIFE.

THE calls upon my time, and the dissatisfied state of my mind during my stay in Farleyville had prevented me from pursuing my studies to as good purpose as on the previous winter. I found, on rejoining my class, that I had fallen behind. My health, also, hitherto excellent, had become such as to give my mother much uneasiness. At length, it was deemed best to have medical advice, and the decision was made that I

must, for the present, abandon my studies, and find the remedy of my illness in country air and relaxation.

This decision fell upon my ear like the sentence of doom. Ere my feet were planted upon the threshold of my career, I was compelled to pause. I believed that I should never again go forward.

My physician endeavored to dissipate this feeling, and to show me that it was nothing more than delay which I had to encounter. Certainly, I could not now graduate until the ensuing year, but he proposed a plan by which the year might be fully and profitably devoted to my studies.

His brother, a wealthy gentleman residing upon the banks of a noble river and in a region of remarkable beauty and salubrity, was educating his two young sons at home. A resident tutor was needed, and with my consent he would recommend me for the situation.

It is scarcely needful to say that I eagerly grasped at this plan. It was proposed to Mr. Sherwood, and by the middle of May I found myself an inmate of his pleasant household.

The boys, two sprightly, well-mannered lads, intelligent, and eager for knowledge, pleased me greatly. Two hours only were spent in the school-room daily, but those were not all that we devoted to study. Far and wide, over the hills, and along the river-brink, we wandered, and the wonders of nature were unfolded to us. There were wonderful fossils in those beetling ledges, and the Flora of that region presented specimens at that day thought to be unique. The forms of animal life were scarcely less various.

It was to the study of nature that the summer was principally devoted. My pupils were scarcely less eager than myself. Day by day unfolded to us new marvels. Day by day added to our stores of useful knowledge. Still we kept up regular lessons, and devoted ourselves strictly to the allotted range of studies in the school-room. Our classics and our mathematics were not neglected in the ardor of our pursuit of a rare moss or flower, or strange insect. Mr. Sherwood was often pleased to congratulate me on keeping an even balance in our studies and pursuits, giving mind and body, each, and at once, its appropriate discipline and recreation.

It was a time of such profit and pleasure to myself, as well as of such visible improvement to my young charges, that it was with an unfeigned sadness I saw it draw to a close.

I had always intended to devote myself to a profession on leaving college, and my thoughts and feelings had inclined me to the law. Now, however, I saw a different career opening before me.

The ensuing months I spent in strict devotion to my studies. I had laid in such a stock of physical strength, and gained such vitality during my summer among the hills, that I could afford to devote myself to study with an ardor far exceeding that of former years. I kept pace with my class, and found time besides for greatly extending my knowledge of my favorite

sciences. I graduated well, receiving, much to the gratification of my friends, higher honors than had been anticipated even by myself.

All the autumn following my graduation, I devoted to a walking tour, during which I added much to my knowledge of natural science. With the winter term, I was to commence the charge of Hamerton Academy, an old and long-established institution. Hamerton was but a few miles from Elmtown. It was not a large village, nor one where business was actively pursued. Being one of the earliest settled towns in the country, many old families still resided there in a quiet sort of way; and it seldom received any fresh vitality, except when some scion of these families, having gone out into the busy world and achieved the object of his wanderings, returned to spend his fortune and his decaying years in the old town which gave him birth.

The tone of society was unusually aristocratic for an American village. Family counted for much, wealth for little. *Noblesse oblige*, was the Hamertonian motto. Family names must be preserved, and family standing maintained. Education was a requirement of the position of these families, and no ordinary instructor would have been permitted to take charge of Hamerton Academy.

The faculty of the college had given me the highest testimonials, and some of my contributions to scientific publications had gained me a rising fame. Still, it was not without surprise that I received, and not without misgiving that I accepted, an appointment to this situation.

THE EDUCATION OF GIRLS.*

FEMALE education, to be appropriate, must be adapted not only to the distinctive nature of the sex, but to the particular organization of the individual. This bears upon an evil which of necessity is inherent in every large seminary, and which, at best, can only be partially obviated. Carlyle, in his *Life of Schiller*, referring to his six years in a Stuttgart school, says: "The system of education seems to have been formed on the principles, not of cherishing and correcting nature, but of rooting it out and supplying its place with something better. The process of teaching and living was conducted with the stiff formality of military drilling. Every thing went as by statute and ordinance; there was no scope for the exercise of free-will, no allowance for the varieties of original structure. A scholar might possess what instinct or capacity he pleased, the 'regulations of the school' took no account of this. He must fit himself into

* Hours at Home.

the common mold, which, like the old giant's bed, stood there, appointed by superior authority to be filled alike by the great and the little. * * * The pupils were kept apart from the conversation or sight of any person but their teachers. None ever got beyond the precincts of despotism to snatch even a fearful joy. Their very amusements proceeded by word of command." What is so forcibly said here of the Stuttgart school must appertain more or less to every large school, because in every large establishment of whatsoever kind, strict method and rigid system are necessary to order. If you subject two plastic natures to exactly the same process, one at least must suffer, because no two natures are exactly alike. If you do this upon two hundred, so much wider the mischief. This treatment must especially injure the feminine organization, because it is the most delicate and sensitive. God, with his infinite resources, always creates with variety. He has made no two grains of sand alike, far less too human beings. He has varied the elements of humanity in almost infinite combinations. It is the sacred office of education to develop a symmetrical healthful fullness of being after the particular type God has indicated for each individual. A true training should no more destroy variety among women, than a true cultivation destroys variety among flowers. There is as much diversity among the flowers as among the weeds; and so there ought to be as much diversity among the good as among the bad. It is true that there are certain qualities which are indispensable to every good character, as petals are to flowers. But it is not the mere presence or the mere number of the petals that gives the charm to the flower. It is the native coloring and the native fragrance. As these differ not only in degree but in kind, so character differs in all its finer essences and issues. Education must heed this. It must work with nature. If it will deal gently by her, and not thrust her aside, or crush her down, she will lend all her best influences to its work, and manifest herself most distinctly and graciously in the result. If it be truly wise, and benign, and patient, she will indeed let it turn and train even the evil roots she has fixed in the very core of the being, so that they shall grow up, not into briars, but into roses. Collective, or to use a more expressive epithet, wholesale education, the only kind boarding-schools can furnish, excludes almost entirely this individual training; and to that one cause is greatly owing the painful lack of spontaneity and the artificial uniformity that mark all the higher circles of American society. This effect must continue until the large boarding-school system gives way to small private schools, or to the employment of thoroughly qualified family governesses, or, far better yet, the teaching and training of daughters, Cornelia fashion by Cornelia mothers. There was a world of practical wisdom in that injunction of Napoleon to Madame Campan: "Be it your care to train up mothers who shall know how to educate their children." Had it been generally followed, France would have been saved.

PHYSICAL GEOGRAPHY.

THE several series of school geographies now in use, although differing widely in degree of adaptedness to class-recitation, are based throughout upon the same general plan of presenting facts without principles, results without causes. While pages of exercises and questions are given upon unimportant political divisions and insignificant rivers, capes, bays, and islands, very little, or more frequently nothing at all, is given upon subjects like prevailing winds and ocean currents and their influences, or the forces which determine and control these influences. If the time which is now spent in memorizing details of no great value at best, were devoted to the consideration of general principles, relations, and influences presented in plain and familiar language, and with frequent reference to well-known facts and objects, the study of geography would not only be more interesting, but far more profitable.

It is true that children of the age at which this study is usually begun, can not be expected to understand the laws which govern the operations of Nature—laws which the wisest are only beginning to comprehend; but one fact is as easily remembered as another, and a child can learn that Western Europe owes its genial climate, and consequently its civilization and prosperity, to the influence of the Gulf Stream as readily as that the Torneo River empties into the Gulf of Bothnia. The superior value of the first fact will not be questioned, yet makers of school geographies persist in filling their books almost entirely with facts like the second.

A certain amount of local and descriptive geography is valuable and necessary; but a knowledge of the principles upon which, and the purposes for which the various divisions of land and water, and the phenomena of Nature were called into existence, is absolutely essential, and we overlook the most important part of the subject when we teach merely the names and situations of the continents, mountains, oceans, rivers, etc. Each of these was created in accordance with a wise and definite plan, each has its special duty to perform, and all work together in harmony for the happiness and well-being of the earth's inhabitants. And if such facts and relations were not simply recognized, but made the basis of our system of teaching the subject, geography would serve the purposes of instruction as well, besides cultivating the pupil's powers of observation and reason, and elevating his thoughts by the contemplation of the wisdom, power and goodness of the divine Architect.

THE Duke of Wellington, in one of his few public speeches, said that "education without religion makes men cunning devils."

AMERICAN EDUCATIONAL MONTHLY.

MAY, 1866.

HONESTY OF EDUCATIONAL JOURNALS.

WITHOUT exception, we believe the conductors of educational journals in the United States are honorable men. In fact, their business offers no temptations to rascals. The publishers and editors of educational periodicals are a philanthropic brotherhood, all zealous in one common cause. Hence, it is not strange that their communications with each other are of the most honorable and courteous character.

While we make no exception in the *United States*, we regret that we must cite an exception so near to us as Canada. The *Journal of Education*, Montreal (Lower Canada), February, 1866, Volume X., No. 2, copies in full, verbatim et literatim, a valuable article from our February number, on "Mathematical Geography," *without credit*. While we can not complain of the journal's appreciation of our articles, we can not appreciate the journal's style of appropriating our property. The article in question was prepared expressly for us by one of our most esteemed contributors, whose name was given in our table of contents.

We make no objection to the free use of whatever papers may please our editorial readers, provided due *credit* be given. We do not take the precaution to copyright the MONTHLY, because we rely upon the honor of educational editors. We have never before had occasion to cry "stop thief."

We regret that we can not find some shadow of excuse for so flagrant an act. We can not look to any individual person for an apology; the paper betrays no names of editors or publishers. Nor does it disclose the location of a publication office, more definitely than "Montreal, Lower Canada."

Upon the journal's title-page, is displayed the motto, "*Labor omnia vincit*." We would suggest, that "labor" can not always "conquer all things." It may remove mountains; it may stop the march of the Fenian army, but it can not preserve a character without spot, nor a reputation without blemish, unless actuated by a becoming honesty of purpose.

The said journal, whose editors and publishers are nameless, further

graces its title-page with the significant words, "Religion, science, liberty, progress." Surely, it may be consistent with "liberty" to make free with the property of other men. The "progress" from indifferent to excellent may be most decided when Mr. Journal appropriates our articles, instead of relying upon his own, or his contributors' brains.

But why steal? Did Mr. Journal presume that the theft would not be detected at home? Our MONTHLY has a highly respectable list of subscribers in Canada. If Mr. Journal has any Canadian readers, it is most likely that our article on Mathematical Geography, with its excellent table, was familiar to them, before it was reproduced by him.

Should Mr. Journal offer in excuse for his conduct that the "Reciprocity Treaty" no longer exists, we shall be happy to take it into most respectful consideration.

COMPOSITION WRITING.

INSTINCT is a great matter. When it runs counter to custom, there is good reason for suspecting that something in the custom is wrong. The dislike which all school children have to writing compositions is too general in its character and too persistent in its manifestation to be the effect of any local circumstance or individual caprice. The good and the bad, the ambitious and the lazy, alike are affected by it. All hate it, and, whenever they can, avoid it. There must be some cause for this, either in the exercise itself or in the manner in which it is conducted. If teachers would examine the matter impartially, taking into account the object to be attained, and judging the merits of the system employed by its results, we believe there are few who would hesitate to acknowledge that the fault lies with the teaching and not with the taught.

What is the object of composition writing? To make original thinkers? Some would have it so; but it never yet accomplished that object, however desirable it may be, and it is difficult to see how it ever can.

Is it to make good writers? So we believe. Does any one know of a superior writer who acquired his style by this exercise? The composition style is proverbial and proverbially bad. A child can hardly be expected to become a master of the art of writing, when he is kept continually at work on his own imperfect efforts, with only such corrections as may be suggested by a teacher who too often can write no better than his pupil.

A novice in other arts is always allowed to avail himself of the labor and the experience of master artists who have gone before him. But not so with the beginner in writing. He is obliged to work his way up as though he were the first to attempt the difficult task of representing thought by visible characters, and the greater part of his time is wasted in overcoming obstacles which he ought never to encounter. It is very easy to tell him to write about something familiar, just as he would talk about it. But it is not so easy for him to do, as any one will discover who will put himself in the position of a child and then try to follow the same advice. Let the various sounds of the language be represented by strange characters, so that the form of each letter and the spelling of each word must be considered separately; then take a pen in the left hand and try to write, and some of the difficulties of composition encountered by a child will be realized. Having so many things to think of at once, what wonder that he becomes confused, and that the more critical and conscientious he is, the harder it is for him. If he has any thoughts on his subject to begin with, he forgets them while considering what words and letters he shall use, and how to make them.

It is true that all this may be overcome, and facility of composition acquired by practice. But we believe it might be much more easily and rapidly done in another and more natural manner, and the rare art of writing good English acquired at the same time.

JARED SPARKS, LL.D.

THE well-known American scholar and author, Jared Sparks, died at his residence, in Cambridge, Mass., on Wednesday, the 14th of March. Mr. Sparks was born in Willington, Conn., May 10, 1789. Obligated to work for his own support from the time he was a mere boy, he laid the foundation of the education for which he afterwards became distinguished, during hours taken from labor. He worked first upon a farm, and afterward in a saw and grist-mill. The latter occupation left him much spare time, which he devoted to his books, and thus early he gave evidence of rare ability, and an insatiable desire for knowledge. When about sixteen years of age, he was apprenticed to a carpenter, with whom he worked two years, when his master canceled his indentures, and young Sparks became village schoolmaster at Tolland, Conn. Here he

taught during the winter season, and in summer supported himself by his trade. He studied mathematics and Latin under the direction of Rev. Hubbell Loomis, the minister of his native town. Through the influence of that gentleman, the Rev. Abiel Abbott was induced to secure for Sparks a scholarship at Phillips' Academy, Exeter, N. H., on a charitable foundation, which gave him education and home, free of cost. He entered the academy in 1809, completed his term in 1811, and being assisted to a scholarship at Harvard College by President Kirkland, he entered that institution the same year. To meet his college expenses, he left his class, and went to Havre de Grace, Md., to teach. Having replenished his purse, he returned to Harvard, and graduated in 1815, with one of the highest honors. After graduating, he taught school in Lancaster, Mass., for a short time, then began the study of theology at the Cambridge school. Shortly after, he was appointed Tutor of Mathematics and Natural Philosophy at Harvard, which office he filled two years, prosecuting, at the same time, his theological studies, and also editing the *North American Review*, of which he was one of the original founders, in 1815. In 1819 he was ordained as minister of the Unitarian church at Baltimore, Md. During his residence in Baltimore, he established and edited the *Unitarian Miscellany*, being himself its largest contributor.

His health failing, he resigned his pastorate, returned to Boston and purchased the *North American Review*, which he edited for seven years. Afterward he devoted himself chiefly to historical authorship. His contributions to American historical literature, probably exceed in bulk those of any other writer, and they are characterized throughout by careful preparation and candid treatment.

The principal works of Mr. Sparks are "The Life of John Ledyard," the American traveller; the Washington papers, with a life of the writer, in twelve octavo volumes; "The Diplomatic Correspondence of the American Revolution," in twelve volumes; "The Life of Gouverneur Morris," in three volumes; "A Library of American Biography," in two series, one of ten volumes, and one of fifteen volumes; "The Works of Benjamin Franklin," in ten volumes; and "Correspondence of the American Revolution," in four volumes. From 1839 to 1849, Mr. Sparks was Professor of History in Harvard College, and president of that institution from 1849 to 1852. His last historical work was published in 1854. Since that time he has quietly enjoyed the rewards of his abundant labors. His life was eminently successful, and made so by elevated aims, untiring industry, and unswerving moral integrity.

A WANT.

WANTED by the teachers of the land—an economical substitute for blackboard and crayon, which, with all the advantages which these possess, shall combine another desideratum—freedom from dust.

So writes a correspondent, who has doubtless learned by dear experience that chalk-dust, though light, is no trifling matter. It may be sneezed at, but it can not be coughed down. It has made its mark and market, and it will continue to be a necessary nuisance in the school-room until something better is made to take its place—on the blackboard, we mean, not in the air. It is not an inconvenience merely. Not a few teachers have been driven from the profession with weakened lungs and ruined health, caused by the continual breathing, in the school-room, of the all-pervading particles of chalk. The effect of this irritating substance upon the throat and lungs of children must be even more injurious.

Here is an opportunity for some enterprising Yankee to do a good thing for the world—and for himself. If there is such an anomaly as a teacher who would be rich, we say to him: "Supply this want, and a fortune is sure." And for honor, the lucky inventor will outrank the author of the latest edition of the multiplication table or even the author of the last "New Grammar."

EDITORIAL CORRESPONDENCE.

THE GERMAN METHOD OF TEACHING GEOGRAPHY.

BERLIN, March 15, 1886.

THE same contest which is going on in American schools respecting the relative value of the "Object Method," and that which has been in vogue from time immemorial, is in progress in the German schools, and with the growing conviction that this so-called new method (as old, by the way, as Aristotle) is the one which is best adapted to meet educational wants. In the application of this method to most studies, the Germans have not made greater progress than we, and it is to Switzerland that both countries must look to find examples of its most effective working. Yet in the science of geography, I think the Germans have worked out a system of great excellence and applicability; and as a friend of my own is carefully studying this system, and is preparing a series of text-books based upon it, I can not do better, it may be, than to devote this letter to the subject.

I need hardly say that the great leader in this department of science,

during the present century, is the distinguished professor in Berlin University, not many years dead, whose name has often been alluded to in this series of letters, Carl Ritter. Not that he has ever prepared a text-book, or series of text-books, on geography, for the use of the schools of Germany: and the volume published recently by Lippincott, and bearing his name, though prepared for the use of our higher seminaries, and admirably adapted, by its clearness and conciseness, for their needs, contains merely the substance of one of the courses of lectures which he delivered before the Berlin University. Nor is there, strange as it may seem, a single geographical text-book published in Germany which is adapted to the wants of schools; and what is learned must be learned by observation alone. I have remarked, in another letter, that the favorite method of instruction in this country is not by means of a text-book, it is by means of oral instruction. Books are published for the use of teachers, and not for that of scholars. It is so in all departments of learning, and in geography the uniform rule is followed. So, if the reader of this letter were to come to Germany, and to ask for the most approved school-books on geography, he would be shown the thick works of Klöden or Daniel, costing several dollars, and numbering thousands of pages. Each of these works he would find an exhaustless storehouse of geographical facts: and in Daniel's he would discover great scientific method, and historical as well as geographical worth. But neither of these standard works would realize his idea of a school text-book. The void is filled in this way, however. Geographical teachers procure these works, and from them they draw the matter which they wish to communicate to their classes. Admirable atlases are published for the use of schools, some of them far surpassing any that are in use in America, and having, like Kiepert's and Sydow's, a world-wide reputation. But the instruction is communicated in the lecture form, oral, familiar, often thorough. Just as medicine is taught in our medical colleges, and as theology is taught in our theological seminaries, so is geography taught to the youngest classes in German schools. The teachers here ridicule the American method of committing to memory the words of a text-book; and, so far as the slavish adherence to the mere written form given in our text-books is concerned, their criticism is just. I do not think their objections to the system of using books just and valid, however, if the books are used simply to communicate facts, and are not to be committed to memory. One great excellence in our system is, that it necessitates a period of preparation. The German method does not: the scholar merely listens to a pleasant, familiar lecture, and remembers as much of it as he can.

But it is in another thing that we can learn of the German teachers; and it is this which the series of works contemplated will aim to supply. It is the adaptation to the growing powers of mind in youth, and the gradual and natural process of unfolding which goes on. This, as I have said, is laid down in no text-book: and I have learned the method entirely from observing its application in the schools, and from conversation with the teachers themselves.

The first stage is to familiarize the children with the geography of their own homes. And not the geography alone, but the natural history of the neighborhood in which they live. If the school is in a village, the nature of hills, plains, brooks, rivers, mountains, lakes, the sea; whatever there is

in sight is made perfectly familiar to them. This is done not alone, but in connection with a rudimental instruction regarding the animals, wild and domesticated, the fowls, the fish, the insects—all the forms of life which abound. In one word, what we call the object-method, applied in reference to the outward world, is made to include the rudimental geographical forms, and whether the scholar lives in the country or city, he is compelled to interpret almost every object which the study of continents brings into notice, by the familiar scenes within a few miles of his father's dwelling. With blackboard and chalk, or with paper and pencil, he is obliged to begin, even then, the drawing of maps, designating, in a rude and childlike way, the most prominent features of the landscape, or if he live in the city, taking some well-known suburban locality, and reducing it to cartographic shape.

Thus the foundation is broadly and thoroughly laid: the vocabulary of geographical terms is acquired, and the first steps in map-drawing taken before the pupil is conscious that he has embarked upon the study of the science of geography. When the first steps are fairly taken; when all the preliminaries are arranged; when the use of relief maps has made him familiar with the aspect of the globe, and he has learned that great countries are made up of the same elements which he can see from the window of his own school-room, he is considered ready for a second step.

This is done primarily, through means of a physical atlas; nothing elaborate, but simple, clear, and intelligible. A country, North America, for example, is laid before the scholar, and the only marks which it bears are those which indicate the mountains. These, of course, are shaded so as to readily indicate their magnitude and general extent. The teacher discusses the great primary subject of highland and lowland, and then shows their influence upon the course and size of rivers. It is the scholar's next task to insert these, and thus to make the map more complete. In all this, of course, the home, with its brooks, or its rivers, is kept in view as the key to the interpretation of the larger scene. When this map is done, then another is laid before the pupil, containing the rivers, but not the mountains; the latter are carefully inserted, and the mutual play of mountains and rivers is in close method carefully studied and understood. The map is then carried forward, till, as a physical map, it is understood. Small countries are studied in the same way; and Switzerland is not considered as studied till the whole course of its valleys has been followed, and reciprocally the valleys and streams being given, the mountain knots have been filled in. I need not say that the countries nearer the children's home are those which are studied with the greatest care, and that Germany is here the central point of interest, as the United States would be with us.

W. L. G.

NEW YORK, 1895.

MR. EDITOR—The injuries which we receive from our fellow-men, in consequence of their ignorance, it is customary to forgive, however much we may regret that men are frequently so rash and meddlesome in regard to matters which they do not fully understand. But truth itself sometimes requires vindication.

The contemptuous synopsis which the critic has given of Kerl's "First Lessons in English Grammar," in the December number of the MONTHLY, is neither full nor fair; and he seems to have entirely misconceived the simple and logical skeleton of plan which underlies the work. Of course, a small grammar can not present much new matter. There is but little room for invention in regard to *go, went, gone; he, his, him*, etc. Whatever of improvement such a treatise contains, must be chiefly in the mode of presenting the subject; and in this respect the criticised book is certainly new and original.

Every one acquainted with grammar, knows that there is a great difference between definitions and such matter as the conjugation of verbs and the declension of pronouns. A corresponding distinction has, therefore, been made in the book. Of definitions, there are given only about a hundred, which would make six or seven pages in all, if printed together; and these definitions are so fully explained, and made so practical by means of illustrations and exercises, that fifty-five pages are devoted to the subject. The critic, himself, admits that the "definitions are generally faultless, and the illustrations apt." And they are not, as he says, excessive in number; because they are all needed for the subsequent part of the work. A man would be foolish to make the lower part of his house inadequate for upholding the superstructure.

The participle is a mixed part of speech; and it is easier to see some elements of its nature, than to comprehend at once its full meaning. For this reason, participial nouns are defined in connection with nouns, and participial adjectives in connection with adjectives, before participles themselves are fully defined. In the sentence, "Sleighing is a pleasant recreation, even in the midst of falling snow," it is easier to see that *sleighing* is a word used as the name of something, and that *falling* is a word used to describe something, than to comprehend the full nature of participles.

Most grammarians have made a botch of infinitives and participles. *Having, being, and having been*, are used as auxiliary participles to other participles, just as principal finite verbs have their auxiliaries. When the critic understands why there are but five personal pronouns, and yet a much greater number in the declension, and why *compound* personal pronouns are still *personal* pronouns, he will probably comprehend the apparent discrepancy between the classification of participles and infinitives, and their forms as given in the conjugation.

The critic's remark about accent, syllables, and words has some force; but every child that begins the study of grammar is supposed to have studied the spelling-book, and to have learned there what words and syllables are.

The definitions which Mr. Kerl has given of personal pronouns and relative pronouns, are both improvements on the old definitions. The chief use of personal pronouns, in language, is to distinguish "speaker, spoken to, and spoken of." The ordinary definition of relative pronouns—that a relative is one which connects clauses—is often not true. In Bryant's address to the sea-breeze, "Spirit that breathest through my lattice," etc., the relative pronoun joins a descriptive or dependent clause to an independent nominative.

In the classification of verbs, there is an inherent difficulty. The old classification is very faulty, and is now generally rejected. When I say

"she reads a book," *reads* is a transitive verb; but when I simply say, "She reads well," *reads* is now considered an intransitive verb. The classification of verbs as transitive and intransitive, and as finite and not finite, rests, of course, on a different basis from the classification of verbs as regular and irregular. (See Kerl's Common-School Grammar, p. 119.) If *predicate* and *affirm* mean precisely the same thing, as the critic affirms, then one of them should be dropped from the English language. Mr. Kerl has preferred the word *predicate*, and has applied it to *all verbs that have person and number*; for the word *affirm* is so apt to be contrasted with *deny*, and is hardly applicable to commands and questions. The constant use of *subject* and *predicate*, in analysis, is itself a strong argument in favor of the word *predicate*.

Whatever, whoever, and whichever are compound words just as much as *myself, himself, and nevertheless*. If the critic does not know that modern philologists have found out a better mode of treating *what* than that which he probably learned from Brown, and if he does not know that participles are used after the auxiliaries *be* and *have*, and *infinitives after all other auxiliaries*, then he is, indeed, very far behind the times! Surely, he must have been lately in or near the famous Sleepy Hollow of Washington Irving, and gone through a Rip Van Winkle nap.

Mr. Kerl has the sentence, "The nominative and the objective case of nouns are alike." He evidently meant that they are alike *in form*; for in the connection in which he uses the expression, he is treating of the forms of words, and not of definitions. The remaining criticism on this sentence shows how grossly and ridiculously ignorant of grammar the critic himself is; for the sentence is grammatically correct, and his officious mending of it *would make false syntax of it!* After every article a noun is understood, if not expressed. "The Old and the New Testament make the Bible," is correct; and means, "The Old Testament and the New Testament make the Bible." To say the Old and the New Testaments, would imply that there are several Old Testaments, and several new ones. The critic's corrected sentence, "The nominative and the objective cases," etc., implies that there is a variety of nominative cases, and also a variety of objective cases—an absurdity. The word *cases* can be used instead of *case*; but then the second article must be omitted.

The critic's remark about *was captured*, is unfair; for he garbled the passage, in which Mr. Kerl simply meant to show some of the *prominent* uses of auxiliary verbs. In the sentence, "He was writing," *was writing* is, of course, in the active voice; but the critic forgets that in the sentence, "Our chains are forging" (Wirt), *are forging* is passive.

The remark about punctuation is also unfair; for, taken in the gross, every one would naturally consider the period a greater pause-mark than the comma; and it would be foolish in any grammarian to base a general definition on an extreme rhetorical exception. The critic's remark, that nothing plainer is given on punctuation, is not true; for each of the principal points is explained with unusual fullness.

The critic intimates that Mr. Kerl has given very little of parsing, analysis, and false syntax. But this is not true; for in all these respects, the book reaches, with much less machinery, considerably further than any other English grammar of the same size; and that it does so, is one of its principal merits. In false syntax, especially, it is almost as comprehen-

sive and useful as the ordinary large grammars. By the way, if this pretentious critic would only study the little book thoroughly and carefully, he would be very apt to learn much more about *italics*, capitals, punctuation, and syntax, than the blunders in his own article warrant us in believing he does know.

The mockery and vainglory of the critic we shall not condescend to notice. Men that are governed by an elevated and refined sense of honor and a reverential love of truth, and that are conscious of superior talents and a just cause, usually conduct warfare in a dignified and gentlemanly manner.

OBSERVER.

CURRENT PUBLICATIONS.

THE work which Prof. Clark has just issued, contains the substance of a course of lectures delivered before the Lowell Institute, of Boston, during February and March, 1864. Although these lectures were given to the public in a popular form, they are not altogether based on what was already known; the author claims no small proportion of the facts and ideas therein promulgated to be original with himself.

While denouncing materialism as an attack upon our belief in a ruling Providence, Prof. Clark maintains that the progressive theory of development is not inconsistent with our ideas of the Creator; it is rather an "argument to prove that there is a power at work in the universe, which possesses foreknowledge; the design of a forecasting, foreordaining mind—a thinking, intelligent being; such a combination of powers that no form of physical law could possibly be conceived to represent."

An animated being is not, as Paley and others would have us believe, a mere mechanism, made up of independent parts. All living beings are composed essentially of four elements, three gaseous, and one solid. In organic substances these elements are held together by chemical affinity, but in organic bodies, where life exists, they are combined by a principle not usually recognized, which our author terms vital affinity. Two substances, therefore, may yield the same chemical elements upon ultimate analysis,

but the circumstances affecting the combining force may have given in the one case life; in the other, death. Although differing so widely in their effects, these affinities are closely allied. We may have, "on one hand, a drop of rosin, gum, or mucus, held together by the natural chemical affinity, and on the other hand, certain living beings, so exceedingly simple in structure that they may be compared to the drop of gum or mucus, but from which they are distinguished by being held together by the affinity called the principle of life." These protean animalcules are so nearly homogeneous throughout, that under even the most powerful microscope they retain their gum-like appearance; and differ from inorganic matter only, in that they possess the vital functions of motion and digestion.

Prof. Clark maintains that these animals may be spontaneously generated, and cites in full Prof. Wyman's experiments upon this interesting subject. Spontaneous generation is one of the most vexing questions to-day in science, the most contradictory results being obtained under the same conditions by different investigators. M. Coste asserts in the most absolute manner that infusoria never make their appearance in solutions which are not exposed to both light and air, and details experiments which appear to be conclusive. On the other hand, Prof. Wyman conducts experiments in vessels closed after being subjected to a high temperature to destroy any germs which might be existing, and succeeds in obtaining great numbers of infusoria. In both cases the results of the investigation

1) MIND IN NATURE, OR THE ORIGIN OF LIFE, AND MODE OF DEVELOPMENT OF ANIMALS. By HENRY JAMES CLARK, Adjunct Professor of Zoology in Harvard University. New York: D. Appleton & Co. 329, pp. 322. 24.

were seen and vouched for by savans of undoubted integrity. Prof. Clark accepts Prof. Wyman's experiments as conclusive; and in view of the fact that in the earliest, or egg-state, all animals are alike, deems them sufficient basis for the assumption, that from the animalcules, thus spontaneously developed, higher and more complicated animals may arise.

To prove this assumption is the object of "Mind in Nature," in which it is supported by a series of reasonings and experimental investigations of so remarkable a character, that although we may not coincide entirely with the deductions, we can not fail to admire the patience and ingenuity of the author. No work has yet been published upon the question of progressive development, that presents the subject as clearly as this. By a note on page 37, we perceive that Prof. Clark claims joint authorship with Prof. Agassiz, in the latter's great work, "Contributions to the Natural History of the United States." He supports his claim with strong evidence, but lets fall some remarks hardly admissible in a work of such importance as this.

Dr. Harkness has added a reader² to his Latin series. Like other books of the kind, it contains fables, anecdotes, and selections from ancient history. It is strange, that compilers of readers adhere to such selections. The transition from these to any author is very abrupt, so that a pupil is as ready to take up Cæsar after reading one-half of the matter found in readers, as if he had read the whole. These books should begin with simple fables, but the selections should be more difficult as the learner advances, and we should, therefore, have extracts from Virgil and Cæsar, as well as from Tacitus and Lucretius, so that the pupil, when studying the former authors might not be puzzled by a moderately complex sentence. There would be much reason for gratitude, if some person, qualified by judgment and experience, would furnish such a text-book. Dr. Harkness' reader is as good as any of its class, and in some respects, better. The directions to learners are practical and excellent. Many teachers would profit by studying them. The notes are concise, and there are numerous references to the author's grammar.

² A LATIN READER. By ALBERT HARKNESS, Professor in Brown University. New York: D. Appleton & Co. 12mo, pp. 212. \$1.25.

When that is used, the reader will be acceptable.

Although considerable information respecting microscopic manipulation has been published, yet it has been in supplementary chapters of large works. Hence, extended reading has been necessary for acquiring a knowledge of the subject. To render essential information accessible to the majority of readers, Mr. Davies has collected all the approved methods of mounting and preserving objects, and presented them in his hand-book.³ This gives all one requires concerning apparatus, mounting, the preparation and use of preservative fluids, dissection and injection of objects. We think the manual would have been more useful if it had contained directions for preparing objects for medical examination; but the amateur will find it a valuable assistant, as it contains many useful hints seldom found in larger works.

Many attempts have been made to reduce our English orthography to system, by fixing the values of the letters now used, and supplying the deficiency of character by modified forms of Roman letters, and letters taken from the Greek or Saxon. But the mongrel appearance of such modified alphabets, and their failure to satisfy those who desire a simple and philosophic system of writing as well as those who stickle for the conservation of the present orthography, must ever prevent their general acceptance. The best of the kind is undoubtedly that devised for the special purpose of reducing to writing the dialects of the East, a full account of which was given in the first volume of this MONTHLY. Those who are interested in the so-called phonetic reform, will take pleasure in reading Magnus Maharba,⁴ an allegorical narrative of the rise and fall of slavery in America. It is printed in the new Saxonized orthography, using the phonetic alphabet above mentioned.

Dr. Barnard's *Journal of Education*, for March, contains: 1. Public Instruction in the Austrian Empire. II. The Nature and Value of Education. III. The Dignity of

³ THE PREPARATION AND MOUNTING OF MICROSCOPIC OBJECTS. By THOMAS DAVIES. New York: William Wood & Co. 12mo, pp. 144. \$1.25.

⁴ MAGNUS MAHARBA, AND THE BLACK DRAGON: AN ALLEGORY OF THE WAR. New York: Brown & Dorr. Price 50 cents; on fine paper, 60 cents.

the Schoolmaster's Work. IV. Documentary History of Normal Schools in the United States. V. The Original Free or Town-school of New England. VI. Glimpses of the Means and Condition of American Education prior to 1800. VII. Schools as they were. VIII. Female Education as it was. IX. American Educational Biography. X. History of Educa-

tional Associations. XI. National Bureau of Education. XII. Advice on Studies and Conduct, by Men Eminent in Letters and Affairs.

Dr. Barnard now offers to send *free*, a copy of "Education in Europe," to any one who will secure *five* subscribers for his Journal, at \$4 each—\$20. Also, his "Object-Lessons," for *three* subscribers, at \$4—\$12.

EDUCATIONAL INTELLIGENCE.

NEW ENGLAND.

MAINE.—There are 3,830 school-houses in this State, of which seventy were erected during the last year. In 1865 the number of pupils enrolled was 158,330; the average attendance was forty-four per cent. The number of teachers employed was 7,290, whose average salary was, for males, \$27.76 per month; for females, \$2.49. The amount of school-money raised by taxation was \$469,463, an excess above requirement of \$27,944. The aggregate expenditure for school purposes was \$857,949. The State Normal School is now in successful operation with four instructors and a roll of one hundred and forty-eight students. Teachers' institutes were held in only a few counties during the year, as the State had withdrawn the appropriation formerly granted for their support and encouragement.

MASSACHUSETTS.—In Boston, the following grade of salaries has been determined for 1866. In the Latin, High, and Normal Schools—masters, \$3,500 per annum; sub-masters, \$2,500; ushers, \$2,000. In the grammar-schools—masters, \$2,500; sub-masters, \$2,000; ushers, \$1,500; head-assistants, \$800; assistants, \$600; and primary teachers, \$600.

—Lowell has at present 55 schools, 94 teachers, and 4,552 pupils enrolled, with an average attendance of 4,017. The total cost of supporting the schools in 1865 was \$71,856. In the early part of the year a truant commissioner was appointed. Through his efforts twenty truants were arrested, and sentenced to the House of Reformation for terms varying from three months to two years. It might be advantageous to introduce this system in all our large cities.

—During last year the School-Committee of Springfield expended \$42,656 for ordinary school purposes, and \$26,969 upon new school-houses. Two buildings are now in course of erection, whose estimated cost is \$78,000. There are 49

schools, 70 teachers, and an average attendance of about 2,500 pupils. At the beginning of the year an advance of \$200, in salaries of the male teachers, and \$50, of females, was made, to continue during the prevalence of high prices. The committee recommend compulsory attendance, as a large number of children in the district attend no school whatever. The superintendent calls attention to the propriety of establishing a truant-school.

CONNECTICUT.—The system of graded-schools was adopted in New Haven twelve years ago. Since that time the number of pupils enrolled has increased from 1,473 to 4,693; the average attendance, from 1,236 to 3,894; the number of teachers, from 28 to 93; and the amount of expenditures, from \$6,946 to \$43,020. Although five large buildings and numerous smaller ones have been erected, yet the increase in accommodations has not proved sufficient for more than one-half the number of children, between the ages of four and sixteen years, now enumerated in the district; and there are at least five thousand such, who could not attend school if they so desired. An attempt was made last year to increase the efficiency of the High-school by incorporating it with the Hopkins Grammar-school, but failed, as the trustees of the latter institution had not the power to accept the proposition. The amount of real estate owned by the district is \$152,000, and the estimated total expenses for 1866 are \$71,200.

—Arrangements have been made to establish a scientific school, for which \$150,000 are to be raised, in connection with the Wesleyan University at Middletown. Isaac Rich, Esq., of Boston, is about to erect a library building for the University, and the alumni have raised a library fund of \$25,000.

RHODE ISLAND.—The city of Providence has 52 schools, with 150 teachers, and an average attendance of between 7,000 and 8,000 pupils. The expenditures last year

were \$30,000. Mr. Leach, the superintendent, is, as he should be, exceedingly severe upon tardy teachers. He insists upon promptness—for its own sake. He recently suspended sixteen pupils from the High-school for a tardiness of two minutes, for which they could offer no reasonable excuse.

MIDDLE STATES.

NEW YORK.—Dr. Hickok has been elected to succeed Dr. Nott in the presidency of Union College, at Schenectady. He had been vice-president from 1849.

—The annual catalogue of the Union Theological Seminary, in New York city, shows that it is in a highly-prosperous condition. It has 125 students, of whom 49 have been in connection with the Union army.

NEW JERSEY.—The principal of the State Normal School makes the following statement respecting last year's work. There were 727 in attendance upon the three schools, Normal, Model, and Far-nam; of these only a small proportion were gentlemen, most probably, as Dr. Hart surmises, because the salaries given to teachers are so low. In the course of study spelling is included; not of choice, but of necessity. "Three-fourths of those who are candidates for admission to the Normal-schools spell in the most shocking manner." As many of these had been at great expense to gain admission, it was not thought advisable to reject them, but rather to introduce spelling in the school. Some changes in the corps of instructors were made during the year. There were twenty-two graduates. The amount received in behalf of the various schools was \$15,280.

PENNSYLVANIA.—From the summary in Superintendent Coburn's annual report, we learn that there are in the State 12,960 schools, 15,564 teachers, and 703,930 pupils. The average attendance during last year was 459,121; the total cost of the system was \$3,614,233, making the average cost of pupils per month 68 cents. In Philadelphia there are 376 schools, with 1,278 teachers and 74,343 pupils, having an average attendance of 63,220. In this city female teachers are employed in all positions, except that of principal of boys' grammar-schools, and succeed admirably. The city superintendent insists upon increase of salary for the female teachers, of whom nearly one thousand receive less wages than the janitresses.

—In this State the holding of teachers' institutes depends upon the will of the school-directors; but when once ordered, teachers are by law required to attend. In several counties two hundred dollars are annually appropriated for defraying

institute expenses. The three Normal schools are in a prosperous condition. As they are unable to accommodate all who desire admission, Mr. Coburn recommends that an appropriation of five thousand dollars be made to each, four-fifths of it to be applied to lessening the expenses of students, and the remainder to increasing the accommodations.

Soldiers' Orphan Schools.—The object of this charity, which is under the direction of Hon. Thomas H. Burrowes, is to furnish a home and an education, at the expense of the State, to the destitute orphan children of soldiers that died during the war. There are now established eight schools in different parts of the State, accommodating seven hundred and thirty-eight fatherless children. Fifteen orphans' homes and asylums throughout the Commonwealth have taken in these orphans to the number of five hundred and nineteen. The total cost for the maintenance of pupils, erection of buildings, &c., from June, 1864, when the scheme was organized, up to December 1st, 1865, was \$103,817.64. The pupils remain in the school until they are sixteen years of age. Only four of the whole number of orphans admitted to the schools have died during the year. In appearance, health, conduct, and intellect, the orphans are quite equal to those of the same ages in the common-schools. It is expected that the duration of the system will not extend beyond the year 1884, when the school will close for the want of inmates. It is computed that the average annual expense of the schools will approximate \$150,000.

—The Friends in Philadelphia have given \$125,000 in aid of the institution for colored youth in that city. The building is on Shippen Street, and will soon be opened with accommodations for 1,200 pupils.

SOUTHERN STATES.

WEST VIRGINIA.—The free-school system here is still in its infancy, and the superintendent has given only his second report. Under the old regime, schools were objects of suspicion, and they are, consequently, "few and far between." Some of the buildings are in ruins, others are cheerless and comfortless log structures, prisons to both teachers and pupils. There are in the State 133 school-houses, valued at \$40,371.75, the average value, excluding those of Wheeling, being less than \$63. However, the people show a willingness to bear the burden of taxation, and everywhere call for school-houses and good teachers. Out of 84,413 youth, between the ages of six and twenty-one years, only 15,973 are enrolled upon the school-lists. The average attendance is deplorably low, being less than fifty per cent. The superintendent

complaints of the inadequate salaries granted to teachers. In Wheeling they average per month, for males, \$139 and for females \$42, there being about 8.8 months in the year; in other districts males receive \$34, and females \$22, there being on the average only 2.7 in the school year. The report contains numerous excellent recommendations, among which are, that the school-fund be apportioned upon the basis of average attendance, that five normal schools be established, that a uniform series of text-books be adopted, and that proper apparatus be procured for the schools. The irreducible school-fund is \$103,122, and the amount expended during the last year was \$67,350.

VIRGINIA.—A vigorous effort is being made for the removal of Randolph Macon College, as the financial condition of the institution is one of serious embarrassment.

SOUTH CAROLINA.—From the January Report of the State Superintendent of Education under the Freedmen's Bureau in South Carolina, it appears that 109 teachers were employed among the Freedmen of that State in December. 6,420 pupils were registered; the average attendance, 4,504. Of the number enrolled, 4,879 were reading; 3,206 studied arithmetic; 1,946 studied geography; 2,983 were writing. 36 of the teachers were natives; 73 from the North; 35 were colored. Of the pupils, 565 were free before the war.

WESTERN STATES.

ILLINOIS.—The whole number of pupils enrolled in the public-schools of Chicago during December, 1865, was 16,014, an increase of 1,296 over the corresponding month of 1864. The average attendance has increased 1,989. Notwithstanding the increased attendance, no new accommodations have been provided, and the schools are over-crowded, while many children are unable to gain admission. The number of pupils to each teacher averages about 70.

IOWA.—The biennial report of the Superintendent of Instruction has just been published. The number of pupils in the State shows an increase of 7,024, and the average attendance of 2,215 over the previous year. The number of teachers is 8,820, a decrease of 135. The aggregate amount of teachers' salaries was \$856,725, an increase of \$170,058. There are 4,635 school-houses valued at \$2,161,563, an increase of \$428,732. 59 institutes were held during the year, and were attended by upward of 4,000 teachers.

MINNESOTA.—The report of Secretary Blakeley, who unites with his duties as Secretary of the State, the responsibility of

State Superintendent of Instruction, gives the following statistics: The number of school districts is 1,824; the number of children between five and twenty-one years of age is 87,244; number of pupils on school-lists, 50,564; average attendance, 32,259; total number of teachers, 2,003; total amount paid to teachers, \$124,563, an increase of \$14,538 over the preceding year; total number of school-houses, 1,112, of which 22 are stone, 12 brick, 517 frame, and 561 log; amount of money received from county treasurers, \$151,917; amount of district taxes, \$32,215; the irreducible school-fund is now more than \$1,000,000, and it is believed it will eventually equal \$12,600,000, as one-eighteenth of the State has been set apart. Here, as elsewhere, the friends of education are grieved by the indifference to school privileges manifested by a large number. Only 37 per cent. of those entitled to the advantages of the schools, are regular in attendance. From this alone, as the secretary shows, the State has suffered a loss in money equaling the amount of teachers' salaries. Mr. Blakeley finds no ground for gratitude in the increased number of school-houses, as skillful teachers are less numerous than formerly. He urges the necessity of appointing an efficient State Superintendent, and maintains that nothing else can render the system effective; its buildings are wretched, its teachers incompetent, its district officers are ignorant, and its annual income is wastefully applied. "Poor schools are dear at any price, good ones are cheap at any reasonable cost, and the latter can not be secured without close and careful supervision."

—The Normal-school at Winona, under the charge of Professor W. F. Phelps, is succeeding admirably. There were in attendance last year eighty-two pupils. The principal holds that county superintendents should exercise more discrimination in selecting candidates. The efficiency of the school would be greatly increased if none were recommended but those who are well advanced in their studies and give promise of becoming successful teachers. The soundness of the principal's opinion will appear from the following selections from examination papers of candidates for admission:

Geography.—1st question. How do we know the earth is round?

1st answer. Because it has been traversed over, examined, and found to be certainly the case.

2d answer. The earth at a distance looks round, also the representation of the globe is round.

To this question there were sixteen correct answers, twenty-seven imperfect, and twelve total failures.

Arithmetic.—3d question. What is a square root of a number?

1st answer. The square root of a number is a number multiplied by itself three times.

2d answer. A number multiplied by itself.

Seven perfect, one imperfect, fifteen "can not answer."

Grammar.—2d question. Give the past tense of the verb "to be" in two numbers and three persons?

1st answer. I was, thou art, he is.

2d answer. I was, they were.

To this question there were four correct answers, two incorrect, and eight replied "can not answer."

The legislature has passed an act making an appropriation of \$10,000, with which to begin an edifice for the school. The bill passed the senate unanimously, and the house with but three dissenting votes. A lot has been purchased in the central part of Winona, and the citizens of that place have subscribed \$5,000 for the furtherance of the project.

ARKANSAS.—The educational interests of this State are in a very backward condition. The public fund, resulting from the sale of the sixteenth section of land in each geographical township, was almost entirely swallowed up by the rebellion, as the legislature passed an act requiring school-commissioners to receive war bonds in payment of all public fund claims. The people are willing to pay good rates of tuition, but have not learned the advantages of owning school property and employing permanent teachers. Consequently, there are few who teach from choice; those who are engaged in the business, taking it up from necessity.

WISCONSIN.—At the Methodist Centenary collection in the Central M. E. Church of Detroit, \$4,000 were raised for the Garret Biblical Institute of Chicago.

KANSAS.—The State Normal-school at Emporia seems to be gaining rapidly in usefulness and public favor. It has been in operation one year, and sixty students are in daily attendance. The present legislature has appropriated \$15,000 for the coming year; \$10,000 are to be used in the construction of a suitable building, and the

remainder for the current expenses of the school.

FOREIGN.

CUBA.—The amount expended on the free-schools last year was \$460,000.

IRELAND.—The whole of Protestant Ireland is in a ferment respecting the proposed affiliation of the leading colleges with the Queen's University. While this change would doubtless be beneficial to the secondary institutions by causing them to elevate their standard of scholarship, there is danger that the non-sectarian system, adopted in these, would be overthrown. On January 20th, a deputation of the Ulster National Educational Association waited on the lord-lieutenant, and presented a memorial, which stated forcibly the main objections to the change. His excellency promised to lay the paper before her majesty's government.

FRANCE.—Six thousand public libraries have been founded and annexed to common-schools within the last four years.

INDIA.—A Calcutta correspondent of the *London Times* says: "Every year the numbers who flock to the schools and colleges of both the State and the missionaries, and aspire to university honors, increase all over India, but especially in Bengal. Recently the enormous hall of the fine new post-office at Calcutta, built just over the Blackhole, was crowded with the university candidates as only the examination-rooms in China are filled. There were one thousand five hundred candidates for matriculation, at or above the age of sixteen, and four hundred and forty-seven undergraduates of two years' standing for the 'little go,' called here the first examination in arts. Next week there will be one hundred and twenty aspiring Bachelors of Arts, besides Masters of Arts, and those who seek professional degrees. But among the would-be Bachelors, there is not a single Mussulman. The Bengalese everywhere predominate in the proportion of four-fifths of the whole."

SCIENCE AND THE ARTS.

—Lately, M. Paul Berit stated to the French Academy that "if the tail of a rat be cut off, skinned, and then inserted under the skin of the same animal, it will continue to live and grow as before." He has since made further experiments, and has succeeded in grafting the tails upon other rats. The operation of grafting was successful after the tails had been subjected to the following conditions: 1. Ex-

posed to the action of air, in a closed tube, for seventy-two hours, at a temperature of 44° to 46° F.; 2. After exposure to a humid heat of 135° F.; 3. After exposure to a temperature of 3° F.; 4. After complete desiccation; 5. After desiccation and exposure to dry heat of 212° F.

—A ministerial order has been issued in France, that only utensils tinned with pure

tin should be used in the military hospitals. M. Jeannel gives the following process for detecting small quantities of lead in tin: he treats five decigrammes of metal filings with an excess of nitric acid, diluted with three times its weight of water, boils the mixture, filters, and then drops into the solution a crystal of iodide of potassium. If only one ten-thousandth part of lead is present, the yellow precipitate of iodide of lead is formed, which will not disappear upon addition of excess of ammonia.

—At Berlin, they have discovered a new way of making butter. The cream is put into a close linen bag, and buried in the ground at the depth of about a foot and a half. At the end of twenty-four hours it is taken out, and found quite firm. It is then necessary to beat it up with a little water, to get rid of the buttermilk. To prevent any admixture of earth, it is better to inclose the first bag in a second. This method is said never to fail, and the butter to be of a particularly fine quality.

—M. Pouchet has sent a paper to the French Academy on the effects of freezing animals. He finds that no animal really frozen is susceptible of revivification, as freezing disorganizes the blood. The temperature at which the death of insects,

grubs, and snails becomes inevitable is far below the freezing point. Animals may be surrounded by ice without being frozen, unless the temperature be very low. M. Pouchet states that when an animal is frozen, the capillaries contract so as to prevent the passage of the blood, and the nuclei of the blood corpuscles escape from the envelopes, and become more opaque than in a normal state.

—It requires as many as 2,000 tons of coal to produce a circular block of aniline 24 inches high by 9 inches wide; but this is sufficient to dye 300 miles of silk fabric.

FOSSIL REMAINS IN IRELAND.—Dr. E. P. Wright recently read a paper at the meeting of the Royal Irish Academy, by Professor Huxley and himself, on the fossil remains of some large Batrachian reptiles from the Irish coal measures. It was stated that these fossil remains rested on the very bottom of the coal-basin at Castlecomer, 1,850 feet below the sea level. The reptiles were six Batrachians; there was one fossil fish and one fossil insect. Professor Haughton said he had Professor Huxley's authority for stating that the coalpit at Castlecomer had, within a few months, afforded more important discoveries than all the other coal-pits of Europe.

NOTES AND QUERIES.

[We have received several answers to the arithmetical question given in March, but only the following agrees with the decision of the court.—Ed.]

PETERSBURG, Va., April, 1866.

MR. EDITOR—The most convenient fractions expressing approximately the shares of the widow and children, as required in the "curious question in arithmetic" in the March number of the MONTHLY,

are: Widow's share, $\frac{1}{2}$; each child's share, $\frac{1}{6}$.

In comparing the dates of settlement of different States, as well as the places where first settled, as given in two geographies, I find a remarkable disagreement. I will give a few examples, presupposing that the different names in one or two cases stand for the same place.

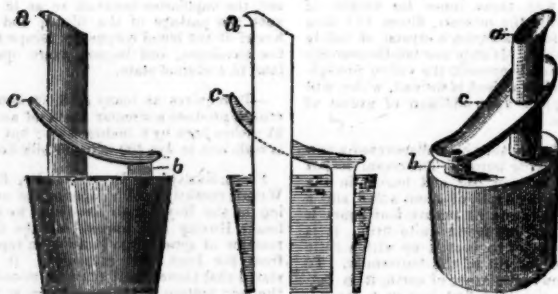
Maine	1625—Bristol.....	1630—York.
Vermont.....	1725—Fort Dummer.....	1749—Brattleboro'.
North Carolina....	1663—Albemarle.....	1653—Roanoke River.
Texas	1690—San Antonio.....	1690—Matagorda.
Michigan.....	1670—Detroit.....	1682—Detroit.
Wisconsin.....	1669—Green Bay.....	1673—Prairie du Chien.
Ohio	1788—Marietta.....	1783—Marietta.
Indiana.....	1690—Vincennes.....	1785—Vincennes.
Missouri.....	1764—St. Louis.....	1753—St. Genieve.
Iowa	1833—Burlington.....	1686—Dubuque.
Minnesota.....	1846—St. Paul's.....	1819—Fort Snelling.
California	1769—San Diego.....	1769—Monterey.

Which are correct?

Yours, truly,

N. COLEMAN.

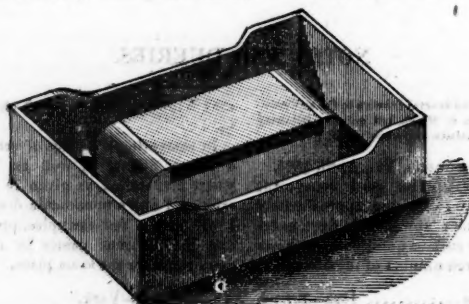
INVENTIONS FOR SCHOOLS.



SCARLETT'S INK VENT consists of an ordinary cork, in which is inserted two tubes, *a* and *b*; *a*, for the passage of ink; *b*, for a vent. The pan, *c*, serves to receive and return to the bottle through the tube *b*, the drops of ink which may adhere to the spout after pouring. By means of this ingenious contrivance, a small and steady stream may be poured, and, when necessary, cut off promptly, without the ink

running down the outside of the bottle. All overflowing of wells, and dripping of ink upon clothing and furniture, is thus entirely avoided.

The convenience of this invention will be readily appreciated by all who have had experience in filling ink-bottles and wells in the old-fashioned way. It is the invention of Mr. Scarlett. The price is 25 cents. It can be sent by mail for 30 cents.



Mr. McMullen, of New York, has recently invented a **PENCIL-SHARPENER**, which consists simply of a file isolated in a box. Its chief advantage is to keep the hands, desk, and clothes clean, and to give a fine point to the pencil.

It will be found equally useful in the counting-house, the library, and the school.

Even the smallest scholar can sharpen his slate-pencil without powdering his hands and clothes with pencil dust. If a slender lead-pencil, that has not much wood on it, be used, the file will take away the wood with ease, so that no knife need be used. It is made in two styles, which are furnished at fifty and seventy-five cents each.

(1) Manufactured and sold by Schermerhorn, Bancroft & Co., 430 Broome-street, New York; 512 Arch-street, Philadelphia; 6 Custom-House Place, Chicago, Ill.

(2) Manufactured and sold by Schermerhorn, Bancroft & Co., 430 Broome-street, New York; 512 Arch-street, Philadelphia; 6 Custom-House Place, Chicago, Ill.